

**REMARKS**

Entry and consideration of this Amendment are respectfully requested.

Claims 1-7 have been examined.

**I. Examiner Interview**

Applicant would like to thank the Examiner for the productive personal interview at the USPTO conducted on November 20, 2002, in which the Applicant's amendment as submitted herewith was discussed.

**II. Claim Rejections under 35 U.S.C. § 112, second paragraph**

The Examiner rejects claims 1-6 under 35 U.S.C. § 112, second paragraph, as being indefinite. Claim 1 is amended to correct antecedent basis and to more clearly define the features of the present invention. This amendment is believed to fully address and overcome the Examiner's rejection without narrowing the scope of the claims.

**III. Illustrative, Non-Limiting Embodiment of Applicant's Invention**

Applicant's invention relates to a container 1 with a slightly cylindrical wall 2 and a petaloid-type base 6, 7 which extends such wall. The base comprises a wall shaped convexly towards the outside, where at least three members 6 originate which are formed by outgrowths

regularly distributed and separated in pairs by a portion of the convex base wall 7. The base wall 7 is hemispherical, except for a peripheral marginal linking area 8 with the cylindrical wall. The aforesaid peripheral marginal linking area 8 has a curve R1, R2 with an inflection 9.

In another illustrative, non-limiting embodiment, the curve radius R of the hemispherical wall 7 is between 80% and 120% of the radius of the cylindrical wall 2.

#### **IV. Claim Rejections under 35 U.S.C. § 102(b)**

The Examiner maintains the rejection of claims 1-6 under 35 U.S.C. § 102(b) as being anticipated by Pocock et al. (U.S. Patent No. 4,296,667). In particular, in the Response to Arguments (see the Office Action dated June 21, 2002, page 4, paragraph 6), the Examiner maintains that Pocock discloses all of the recitations of claim 1. Further, the Examiner asserts that an inflection is a change of direction in curvature of an arc or curve, but that an inflection does not require a change in curvature from concave to convex or vice versa. See, e.g., the Office Action dated June 21, 2002, page 4, paragraph 6, lines 7-9. For the following reasons, Applicant traverses this rejection.

It is settled law that the claims must be read in light of the specification. If a claim term is not specifically defined by the specification, the term should be given its ordinary meaning.

Claim 1 recites, *inter alia*, “a curve (R1; R2) with and inflection (9).” As shown in Figure 3, for example, Applicant discloses that the peripheral marginal linking area 8 has a curve R1, R2 with an inflection 9. See also, page 7, lines 16-18. Applicant describes the curve

radiuses R1, R2 as being on both sides of the inflection point 9. Thus, as shown in Figure 3, for example, the peripheral marginal linking area 8 has a curve R1, R2 that changes in curvature from concave to convex at an inflection point. Therefore, with respect to claim 1, Applicant submits that Pocock does not disclose or suggest an "inflection", as defined by Applicant. That is, Pocock does not disclose or suggest a change in curvature of an arc or curve from concave to convex or conversely.

Additionally, claim 1 is amended to define more clearly the claimed "inflection", according to the claimed invention. Accordingly, Applicant submits that Pocock neither discloses nor suggests at least a peripheral marginal linking area that has "a curve (R1; R2) with an inflection (9)", "wherein said inflection (9) is a change in curvature of said curve (R1; R2) from a concave curve to a convex curve," as recited in claim 1 (as amended).

In contrast, Pocock relates to a bottle 10 having a side wall or body 21 into which the bottom end 20 smoothly blends. The bottom end 20 is basically of a hemispherical outline having projecting therefrom a plurality of circumferentially spaced hollow legs 23 with the bottom wall actually being in the form of spaced-apart wall portions 22 disposed between adjacent legs 23 (See col. 2, lines 16-24).

In Pocock, the bottom wall portion upwardly from the curved line portion 31 includes a straight line portion 32 which extends from the adjacent part of the curved line section 31, as shown in Figure 5 (See col. 3, lines 18-21; see also Figures 6-9, straight lines 32, 41 and 47). Pocock further discloses that the straight line cross sectional portion 32 is the cross section of

frustoconical intermediate portion (See col. 3, lines 21-23). Pocock, however, does not disclose or suggest a peripheral marginal linking area having a curve R1, R2 with an inflection.

Instead, Pocock discloses a curved line section, a straight line intermediate section, a short radius curved line, and a large radius curved line. As shown in Figure 5 of Pocock, each curve is curved in the same direction, therefore, Pocock does not disclose an inflection, as defined by claim 1. That is, Pocock neither discloses nor suggests a change in curvature of a curve from concave to convex, or conversely, from convex to concave. Therefore, the rejection of claim 1 should be withdrawn.

In addition, claim 4 is rewritten in independent form including all of the recitations of claim 1. Therefore, for at least the reasons set forth above, the anticipation rejection of claim 4 by Pocock also should be withdrawn.

Further, claims 2, 3, 5, and 6 also should be patentable over Pocock at least by virtue of their dependency from claim 1, and therefore, the rejection of these claims also should be withdrawn.

#### **VI. Claim Rejections under 35 U.S.C. § 102(b) by Motill**

The Examiner maintains the rejection of claims 1, 5, 6, and 7 under 35 U.S.C. § 102(b) as being anticipated by Motill (U.S. Patent No. 4,368,825). In particular, in the Response to

Arguments (see Office Action dated June 21, 2002, page 4, paragraph 6), the Examiner maintains that Motill discloses all of the recitations of claim 1.

It is settled law that the every claim term must be given patentable weight. The claims must be read in light of the specification. If a claim term is not specifically defined by the specification, the term should be given its ordinary meaning.

Therefore, for the following reasons, Applicant traverses this rejection. In particular, Applicant submits that Motill does not disclose or suggest a base wall that is hemispherical, except for a “peripheral marginal” linking area, as recited in claim 1.

For example, Applicant discloses that the presence of the hemispherical wall makes it possible to distribute the stresses caused by the internal overpressure, or by the weight of the contents of the container, in a uniform manner, thereby eliminating areas that are susceptible to breakage cracks (See page 5, lines 1-3). As shown in Figures 3-6C, the base wall 7, according to Applicant’s invention, is hemispherical except for the peripheral marginal linking area 8 with the cylindrical wall. In addition, the peripheral marginal linking area can deform under stress action, thereby further reducing the stresses exerted on the hemispherical wall even further (See page 5, lines 4-5).

Moreover, based on its ordinary meaning, “peripheral” is defined as: of or relating to, involving, or forming a periphery or surface part. In addition, “periphery” is defined as: the external boundary or surface of a body. Further, based on its ordinary meaning, “marginal” is

defined as: of, or relating to, or situated at a margin or border. See Merriam-Webster's Collegiate Dictionary, 2002.

Thus, Applicant submits that the location of the peripheral marginal linking area of claim 1 is at the outer edge of the container where the hemispherical base wall 7 is linked to the cylindrical wall 2. This is consistent with Applicant's disclosure, as shown in Figures 1-6C.

As disclosed by Applicant, the location of the linking area is important to the mechanical performance of the container (See page 5, lines 1-14). For example, the location and curve of the marginal linking area are such that deformation is limited and the risks of rupture are nonexistent (See page 5, lines 5-7). In the marginal area, the material is stretched to a high degree during manufacturing, and the mechanical strength is therefore increased (See page 5, lines 7-8). Further, the inflected shape of the curve allows it to deform without stretching the material too much (See page 5, lines 8-9). Moreover, since the top end of each of the members is linked with the peripheral wall, a mechanical reaction occurs between the top ends of two adjacent members and the inflected marginal part located between these members, as a result of which the deformation of the marginal part under stress is limited (See page 5, lines 11-14).

In contrast, as illustrated in Figures 3, 5, 7, and 9, Motill does not disclose a base wall that is entirely hemispherical, except for a peripheral marginal linking area that is not a hemispherical shape. Instead, Motill discloses a shallow, nearly flat, hemispherical cavity CDE in the central portion of the base (See Figures 3, 5, 7, and 9; see also col. 6, lines 37-41; and col. 6, lines 50-61). In particular, Motill discloses that the maximum depth of the concavity C and E

is shallow relative to dimension Rs and therefore the central portion of the concavity profile has a nearly flat configuration (See col. 6, lines 50-61). Further, Motill discloses that the segments CD and DE form a nearly flat mid-point because of gate requirements in the molding operation.

Moreover, as shown in Figures 3, 5, 7, and 9, the concavity CDE is only a small portion of the base and it is located in the center portion of the base. The majority of the base comprises the segments AB and BC, and EF and FG. Thus, unlike the claimed invention, the base of Motill is not a hemispherical shape, with the exception of the peripheral marginal areas; rather, the base of Motill has not only a concavity CDE, but also generally flat segments AB and FG and curved segments BC and EF, which surround the concavity CDE, as shown in Figure 9.

Furthermore, the location of point B is depicted in each of the respective figures approximately midway between the side wall 3 and the axis of the container. Moreover, Motill does not disclose or suggest locating point B near the periphery of the container or in a marginal location, such that the shape of the base wall is hemispherical, except for a peripheral marginal linking area that is not a hemispherical shape.

Accordingly, Applicant submits that Motill neither discloses nor suggests a base wall that is hemispherical, except for a "peripheral marginal linking area," as recited in claim 1. Therefore, the rejection of claim 1 should be withdrawn.

In addition, Applicant submits that claims 5, 6, and 7 also are patentable over Motill at least by virtue of their dependency from claim 1, and therefore, the rejection of these claims also should be withdrawn.

**VII. Claim 4:**

Claim 4 is rewritten in independent form including all of the recitations of the base claim. Claim 4 recites, *inter alia*, that “the curve radius (R) of the hemispherical wall (7) is between 80% and 120% of the radius of the cylindrical wall (2).” Applicant submits that neither Pocock nor Motill, either alone or in combination, discloses or suggests all of the features of claim 4. Therefore, for at least this reason, Applicant submits that independent claim 4 is in condition for allowance.

**VIII. Conclusion**


In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.



PRELIMINARY AMENDMENT  
U.S. Application No. 09/582,292  
Attorney Docket No. Q59354

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

**The claims are amended as follows:**

1. (Twice Amended) A container (1) with a slightly cylindrical wall (2) and a petaloid-type base (6,7) which extends such wall, said base comprising a wall in general shaped convexly towards the outside, where at least three members (6) originate which are formed by outgrowths regularly distributed and separated in pairs by a portion of the convex base wall (7), wherein

the base wall (7) is hemispherical, except for a peripheral marginal linking area (8) with the cylindrical wall,

said peripheral marginal linking area [aforesaid marginal zone] (8) has a curve (R1; R2) with an inflection (9) so that the base wall and the peripheral marginal linking area [zone] as well as the cylindrical wall and the peripheral marginal linking area are linked in an almost tangential manner, and

the top end of each member is connected with the cylindrical wall (2),

wherein said inflection (9) is a change in curvature of said curve (R1; R2) from a concave curve to a convex curve.

4. (Thrice Amended) A container (1) with a slightly cylindrical wall (2) and a petaloid-type base (6,7) which extends such wall, said base comprising a wall in general shaped

convexly towards the outside, where at least three members (6) originate which are formed by outgrowths regularly distributed and separated in pairs by a portion of the convex base wall (7), wherein

the base wall (7) is hemispherical, except for a peripheral marginal linking area (8) with the cylindrical wall,

said peripheral marginal linking area (8) has a curve (R1; R2) with an inflection (9) so that the base wall and the peripheral marginal linking area as well as the cylindrical wall and the peripheral marginal linking area are linked in an almost tangential manner, and

the top end of each member is connected with the cylindrical wall (2),

wherein said inflection (9) is a change in curvature of said curve (R1; R2) from a concave curve to a convex curve; and

[A container according to Claim 1, ]

wherein the curve radius (R) of the hemispherical wall (7) is between 80% and 120% of the radius of the cylindrical wall (2).